

**AMENDMENTS TO THE CLAIMS:**

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

---

B<sup>2</sup> 1. (Currently Amended) A semiconductor ~~involatile~~ nonvolatile storage element which is a ferroelectric nonvolatile storage element, comprising: including a semiconductor substrate defining a source region, a drain region and a channel region between the source region and the drain region; and

a field effect transistor ~~[[:]] wherein the field effect transistor includes~~ including a structure successively laminated with a first insulator layer, a first conductor layer, a ferroelectric layer and a second conductor layer on ~~[[a]] the~~ channel region of [[a]] the semiconductor substrate, the first insulator layer extending over the entire channel region to thereby completely separate the semiconductor substrate from the first conductor layer;

~~wherein the field effect transistor includes~~ further including a third conductor and a fourth conductor respectively formed on ~~[[a]] the~~ source region and [[a]] the drain region on both sides of the channel region of the semiconductor substrate, the field effect transistor further comprising:

a second insulator thin film between the third conductor and the first conductor layer and between the fourth conductor and the first conductor layer.

2. (Currently Amended) The semiconductor nonvolatile storage element according to Claim 1, [[:]] wherein recesses and projections are included at a side wall of the first conductor layer opposed to the third and the fourth conductors and/or side walls of the third and the fourth conductors opposed to the first conductor layer.

B2  
cont.  
3. (Currently Amended) The semiconductor nonvolatile storage element according to Claim 1 or 2, [[:]] wherein the semiconductor substrate is an SOI substrate.

4. (Currently Amended) The semiconductor nonvolatile storage element according to any one of Claim 1 or 2, [[:]] wherein an area of the second conductor layer above the ferroelectric layer is ~~made~~ smaller than an area of the ferroelectric layer.

5. (Currently Amended) The semiconductor nonvolatile storage element according to any one of Claim 1 or 2, [[:]] wherein the second conductor layer is disposed above an element isolating region of the semiconductor substrate.

6. (Currently Amended) The semiconductor nonvolatile storage element according to any one of Claim 1 or 2, [[:]] wherein each of the first insulator layer and the second insulator thin film comprises a layer of one material or a layer

laminated with two or more of materials selected from a group consisting of  $\text{SiO}_2$  (silicon oxide),  $\text{SiN}$  (silicon nitride),  $\text{SiON}$  (silicon oxynitride),  $\text{SiO}_2$ - $\text{SiN}$  (ON film: silicon oxide - silicon nitride),  $\text{SiO}_2$ - $\text{SiN}$ - $\text{SiO}_2$  (ONO film: silicon oxide - silicon nitride silicon oxide),  $\text{Ta}_2\text{O}_5$ ,  $\text{SrTiO}_3$ ,  $\text{TiO}_2$ ,  $(\text{Ba},\text{Sr})\text{TiO}_3$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{ZrO}_2$ ,  $\text{HfO}_2$ ,  $\text{Y}_2\text{O}_3$ ,  $\text{CeO}_2$ ,  $\text{CeZrO}_2$  and YSZ (yttrium oxide stabilized zirconium oxide).

B2  
cont.  
7. (Currently Amended) The semiconductor nonvolatile storage element according to any one of Claim 1 or 2, [[:]] wherein the ferroelectric layer is a layer of one material selected from a group consisting of  $\text{SrBi}_2\text{Ta}_2\text{O}_9$ ,  $\text{PbTiO}_3$ ,  $\text{PbZr}_x\text{Ti}_{1-x}\text{O}_3$ ,  $\text{Pb}_y\text{La}_{1-y}\text{Zr}_x\text{Ti}_{1-x}\text{O}_3$ ,  $\text{Bi}_4\text{Ti}_3\text{O}_{12}$ ,  $\text{SrNbO}_7$ ,  $\text{Pb}_5\text{Ge}_3\text{O}_{11}$  and  $\text{Sr}_2\text{Ta}_x\text{Nb}_{1-x}\text{O}_7$ .

8-12. (Canceled)

13. (New) The semiconductor nonvolatile storage element according to Claim 1, wherein the first insulator layer and the second insulator thin film form a U-shaped insulator.

14. (New) The semiconductor nonvolatile storage element according to Claim 13, wherein a total effective area of an MIS structure formed by the semiconductor substrate, the first insulator layer and the first conductor layer and of

an MIM structure formed by side walls of the third and fourth conductor and side walls of the second insulator thin film is adjustable by controlling a height of the first conductor layer and the third and fourth conductors.

15. (New) The semiconductor nonvolatile storage element according to Claim 1, wherein the first insulator layer and the second insulator thin film are formed at the same time.

B2  
cont.  
16. (New) The semiconductor nonvolatile storage element according to Claim 1, wherein the second insulator thin film is formed separately from the first insulator layer.

17. (New) The semiconductor nonvolatile storage element according to Claim 1, wherein recesses and projections are included at a side wall of the third and the fourth conductors opposed to the first conductor layer.

18. (New) The semiconductor nonvolatile storage element according to Claim 1, wherein recesses and projections are included at a side wall of the first conductor layer opposed to the third and the fourth conductors.